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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/618,296

07/11/2003

Raymond Mark Nuber

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SUITE 101
RESTON, VA 20191

EXAMINER

GONZALEZ, AMANCIO

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

09/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/618,296

Applicant(s)

NUBER, RAYMOND MARK

Examiner

Amancio Gonzalez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 40-48 is withdrawn in view of the newly discovered references to Bell et al (US 20040185775 A1), hereafter "Bell," and Prieto et al. (US 6381228 B1), hereafter "Prieto." Rejections based on the newly cited references follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 40-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al (US 20040185775 A1), hereafter "Bell," in view of Prieto et al. (US 6381228 B1), hereafter "Prieto."

Consider claim 40, Bell discloses a hybrid payload satellite (***hybrid reads on digital/analog*** -see the abstract, pars. 0030, 0033, 0041, 0048, 0055, where Bell

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discusses onboard digital/analog payload processing in a communication satellite). Bell discloses the hybrid payload satellite including an antenna having an uplink section and a downlink section (**see par. 0034, where Bell discusses uplink and downlink antennae**). Bell discloses an uplink electronics unit, and connection resources, the hybrid payload satellite capable of handling a digital payload and an analog payload (**see pars. 0004, 0030, 0055, claim 20, where Bell discusses analog/digital circuitry and functions**). Bell discloses a forward payload section including a forward processing module and a forward amplifier, the forward payload section for handling the analog payload (***forwarding reads on retransmitting downlink to earth or to another satellite; hence, forward processing module reads on down-converter*** -see pars. 0005, 0029, 0032, 0055, where Bell discusses amplifying and processing, i.e., multiplexing and down-converting a received beam and retransmitting to earth or to another satellite).

Bell discloses a return payload section including a return processing module and a return amplifier and the return payload section for handling the digital payload (***return payload read on uplink beam*** -see the abstract, par. 0005, par. 0007 lines 1-24, pars. 0011, 0012), but does not particularly refer to having an arbitration processor or intercepting a request from one of a plurality of user terminals on the uplink section for access to a connection with the content provider or either granting or denying the intercepted request based on the resources available for transmission to the content provider. Prieto teaches an arbitration processor (***arbitration reads on coordination of non-contentious data transmission*** -see the abstract, col. 2 lines 19-26, 61-67,

col. 3 lines 1-25, where Prieto discusses coordination of non-contentious data transmission). Prieto further teaches intercepting a request from one of the plurality of user terminals on the uplink section for access to a connection with the content provider **(see col. 3 lines 3-6, where Prieto discusses user terminals sending a service reservation request).** Prieto further teaches either granting the intercepted request or denying the intercepted request based on the resources available for transmission to the content provider **(see col. 3 lines 10-25, where Prieto discusses granting or denying the reservation request based on a set of predetermined parameters, including resource availability).**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Bell and have it include an arbitration processor and intercepting a request from one of a plurality of user terminals on the uplink section for access to a connection with the content provider, either granting or denying the intercepted request based on the resources available for transmission to the content provider, as taught by Prieto, thereby providing means for providing in a communication satellite an onboard demand assigned multiple access protocol for use in connection with a processing satellite communication network that allows multiple users to efficiently use a common uplink transmission resource, as discussed by Prieto **(see col. 1 lines 7-14).**

Consider claim 41, Bell, as modified by Prieto, teaches claim 40 and further teaches wherein the forward amplifier includes a forward traveling wave tube amplifier (TWTA) and the return amplifier includes a return TWTA (see Bell: par. 0032).

Consider claim 42, Bell, as modified by Prieto, teaches claim 40, and Prieto further teaches wherein the arbitration processor is further configured to transmit a message to the plurality of user terminals granting or denying access to the connection resources (see Prieto: the abstract, col. 3 lines 10-25).

Consider claim 43, Bell, as modified by Prieto, teaches claim 40, and Prieto further teaches collision detection (see Prieto: col. 2 lines 8-11, col. 4 lines 40-55, where Prieto discusses the user detecting a collision by absence of acknowledgment on the downlink within a predetermined time or acknowledgement timeout).

Consider claims 44-48, Bell, as modified by Prieto, teaches claim 40, and Prieto further teaches a demand assigned multiple access (DAMA) processor (see Prieto: the abstract, col. 2 lines 61-67, col. 4 lines 15-39, fig. 2).

Response to Arguments

5. Applicant's arguments with respect to **claims** 40-48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Delaney Street
Alexandria, VA 22314

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amancio Gonzalez, whose telephone number is (571) 270-1106. The Examiner can normally be reached on Monday-Thursday from 8:00 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached at (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

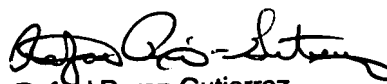
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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amancio González
AG/ag

August 29, 2007


Rafael Perez-Gutierrez
Supervisory Patent Examiner
Technology Center 2600
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8/30/07